



APPENDIX **A**

Installing and Patching Oracle 10g

A.1 Installing Oracle 10g

This section provides supporting information to assist you with the Oracle 10g installation.



Note

- Oracle 10g is available only for a 64-bit architecture.
 - Use the information in this section in conjunction with the Oracle documentation available on the Oracle website.
-

A.1.1 Prerequisites

Before you install Oracle 10g, verify that:

- Oracle is not running
- The oracle UNIX user exists and is configured correctly

A.1.2 Installing the Oracle 10g Software with the Response File (*.rsp) Provided by Cisco

Step 1 Enter the following command to copy the default profile to the Oracle home directory:

```
cp /cdrom/cdrom0/Disk1/InstData/Solaris/VM/cfg/{small | medium | large | highend}/.cshrc /oracle/.cshrc
```

For example, to copy the default profile for a small network, enter:

```
cp /cdrom/cdrom0/Disk1/InstData/Solaris/VM/cfg/small/.cshrc /oracle/.cshrc
```



Note

If you installed Oracle Standard Edition, you must copy the default profile for a small network.

Step 2 If you are upgrading from an earlier CTM release, verify that the ORACLE_SID environment variable is set correctly in the .cshrc file. Complete the following substeps:

- a. Enter the following command to determine the *<Oracle_SID>* value:

```
cat /var/opt/oracle/oratab | grep product
```

- If Oracle is not installed, the command output is similar to the following:

```
cat: cannot open /var/opt/oracle/oratab
```

In this case, choose a value for the `<Oracle_SID>`; the recommended value is `CTM`.

- For Oracle9i installed on CTM R8.0, the command output is similar to the following:

```
<Oracle_SID>:/oracle/product/9.2:Y
```

- For Oracle 10g installed on CTM R8.5, the command output is similar to the following:

```
<Oracle_SID>:/oracle/product/10.2.0:Y
```

- Complete one of the following options, depending on the value of the `<Oracle_SID>`:

- If the `<Oracle_SID>` is `CTM`, proceed to [Step 3](#).
- If the `<Oracle_SID>` is not `CTM`, open the `/oracle/.cshrc` file using a text editor. In the following line, replace `CTM` with the value of the `<Oracle_SID>` in the `oratab` file:

```
setenv ORACLE_SID CTM
```

Step 3 Complete one of the following options, depending on your Oracle version:

- Enter the following commands if you are installing 64-bit Oracle Enterprise Edition and Oracle patch 10.2.0.3:

```
cp /cdrom/cdrom0/Disk1/oracle10_enterp.rsp /oracle
cp /cdrom/cdrom0/Disk1/patchset_64bit_10203.rsp /oracle
```

- Enter the following commands if you are installing 64-bit Oracle Standard Edition and Oracle patch 10.2.0.3:

```
cp /cdrom/cdrom0/Disk1/oracle10_std.rsp /oracle
cp /cdrom/cdrom0/Disk1/patchset_64bit_10203.rsp /oracle
```

Step 4 Enter the following commands to change ownership of the Oracle software directories:

```
/usr/bin/chown -R oracle:dba /oracle
/usr/bin/chown -R oracle:dba /db01
/usr/bin/chown -R oracle:dba /db02
/usr/bin/chown -R oracle:dba /db03
/usr/bin/chown -R oracle:dba /db04
/usr/bin/chown -R oracle:dba /db05
/usr/bin/chown -R oracle:dba /ctm_backup
```

Step 5 If you are using `db01_rd` or `db02_rd`, enter the following commands to change ownership of the Oracle software directories:

```
/usr/bin/chown -R oracle:dba /db01_rd
/usr/bin/chown -R oracle:dba /db02_rd
```

Step 6 Enter the following command to add execution permissions:

```
/usr/bin/chmod +x /oracle/.cshrc
```

Step 7 Enter the following commands to create the `/temp` directory if it does not already exist, and set its permissions:

```
mkdir /temp
chmod 777 /temp
```

Step 8 Using [Table A-1](#) as a reference, complete the following substeps to set the kernel parameters:

a. Enter the following command:

```
cd /cdrom/cdrom0/Disk1
```

b. Depending on your network size, enter one of the following commands to run the `./pre_oracle_install.sh` script under Disk1:

– For a small CTM R9.0 installation, enter:

```
./pre_oracle_install.sh small
```

– For a medium CTM R9.0 installation, enter:

```
./pre_oracle_install.sh medium
```

– For a large CTM R9.0 installation, enter:

```
./pre_oracle_install.sh large
```

– For a high-end CTM R9.0 installation, enter:

```
./pre_oracle_install.sh highend
```

The following message appears after the script completes:

```
Kernel Parameters are updated. Please reboot the server.
```

c. Enter the following command to reboot the system so the changes take effect:

```
init 6
```

[Table A-1](#) lists the recommended values to set for resource control. The values are different for each network configuration installed on CTM R9.0.

Table A-1 Recommended Resource Control Values

Network Size	Project Default Values	Projects Associated with user.oracle			
		max-shm-memory	max-shm-ids	max-sem-nsems	max-sem-ids
Small	1 GB	1073741824 ¹	<default value> ²	<default value> ²	1000
Medium	4 GB	4294967296 ³	<default value> ²	<default value> ²	1000
Large	8 GB	8589934592 ⁴	<default value> ²	<default value> ²	2000
High end	16 GB	15032385536 ⁵	<default value> ²	<default value> ²	2000

1. This value is equivalent to 1 GB.

2. This value is kept unchanged.

3. This value is equivalent to 4 GB.

4. This value is equivalent to 8 GB.

5. This value is equivalent to 14 GB.

Step 9 Log in as the root user. If you are installing on separate workstations, log in on the CTM database workstation. The C shell (csh) is recommended. To start the C shell, enter the following command:

```
/bin/csh
```

Step 10 Enter the following command to verify that the changes to the kernel parameters took effect:

```
grep user.oracle /etc/project
```

In the command output, you should see information similar to the following examples based on the network configuration you chose in [Step 8](#) substep **b**, where the parameters associated to user.oracle are reported in a single line separated by semicolons:

- Small network configuration:

```
user.oracle:100:OracleDB::project.max-sem-ids=(privileged,1000,deny);project.max-shm-memory=(privileged,1073741824,deny)
```

- Medium network configuration:

```
user.oracle:100:OracleDB::project.max-sem-ids=(privileged,1000,deny);project.max-shm-memory=(privileged,4294967296,deny)
```

- Large network configuration:

```
user.oracle:100:OracleDB::project.max-sem-ids=(privileged,2000,deny);project.max-shm-memory=(privileged,8589934592,deny)
```

- High-end network configuration:

```
user.oracle:100:OracleDB::project.max-sem-ids=(privileged,2000,deny);project.max-shm-memory=(privileged,15032385536,deny)
```

Verify that the parameters shown in the output are set to the same value that they were set to in [Step 8](#).

Step 11 Enter the following command to log in as the oracle user:

```
su - oracle
```

Step 12 Depending on the distribution media of the Oracle software, change to the directory where the runInstaller application is located. For example, if you are using a DVD, enter:

```
cd /dvd/dvd0
```

Step 13 Complete one of the following options to start the Oracle installer, depending on your Oracle version. When this step is complete, you will be prompted to run several shell scripts as root. Instead, press the **Enter** key to return to the prompt. You will run those scripts in the steps following this one.

- If you are installing 64-bit Oracle Enterprise Edition, enter:

```
./runInstaller -silent -responseFile /oracle/oracle10_enterp.rsp &
```

- If you are installing 64-bit Oracle Standard Edition, enter:

```
./runInstaller -silent -responseFile /oracle/oracle10_std.rsp &
```



Note

- If you do not have a DVD, see your Oracle documentation for instructions on how to download and extract the correct software for the installation.
- When carrying out the steps in this section, see the official *Oracle Content Database Installation Guide* at http://download.oracle.com/docs/cd/B32119_01/doc/contentdb.1012/b31415/toc.htm.

Step 14 Enter the following commands to create the local/bin directory:

```
cd /oracle/product/10.2.0
mkdir -p local/bin
```

Step 15 If you were prompted to run the /oracle/oraInventory/orainstRoot.sh script with root privileges in [Step 13](#), log into another terminal window as the root user and enter the following command:

```
/oracle/oraInventory/orainstRoot.sh
```

- Step 16** If you were prompted to run the `/oracle/product/10.2.0/root.sh` script in [Step 13](#), log into another terminal window as the root user and complete the following substeps:
- Enter the following command:

```
cd /oracle/product/10.2.0
```
 - Enter the following command to run the `root.sh` script:

```
./root.sh
```
 - At the prompt for the local bin directory, enter the following path in the `root.sh` script:

```
/oracle/product/10.2.0/local/bin
```
- Step 17** Because the client static library (`libclntst10.a`) is not generated during installation, you must complete the following substeps to generate and link your applications to the client static library:
- Enter the following command to log into the database workstation as the oracle user:

```
su - oracle
```
 - Enter the following command to generate the client static library:

```
$ORACLE_HOME/bin/genclntst
```
-

A.1.3 Downloading Set 2 of the Oracle 10g 10.2.0.3 Patch for the Solaris Operating System (SPARC 64-Bit)

CTM R9.0 requires that Set 2 of the Oracle 10g 10.2.0.3 patch be installed.



Note You must create a MetaLink account to download the 10.2.0.3 patch from the Oracle website.

- Step 1** Go to <http://metalink.oracle.com> and click **Login to MetaLink**. Enter your Oracle MetaLink username and password.
- Step 2** Extract the 316900.1 document.
- Step 3** Click **Advanced** at the top of the Oracle MetaLink page.
- Step 4** Enter **316900.1** in the Document ID field; then, click **Submit**. The 316900.1 document provides the following information:
- System requirements
 - Lists of resolved bugs
 - List of known issues
- Step 5** Click **Patches**.
- Step 6** Click **Simple Search**.
- Step 7** Enter **5337014** in the Search by Patch Number(s) field.
- Step 8** Choose **Solaris Operating System (SPARC 64-bit)** from the Platform or Language list box.
- Step 9** Click **Go**.
- Step 10** Click **Download** to download the `p5337014_10203_SOLARIS64.zip` file.

Step 11 Enter the following command to log into the database workstation as the oracle user:

```
su - oracle
```

Step 12 Save the patch to the /oracle directory.

Step 13 Enter the following command to prepare the patch:

```
unzip p5337014_10203_SOLARIS64.zip
```

A directory named Disk1 is created automatically.

Step 14 Remove the p5337014_10203_SOLARIS64.zip file from the /oracle directory.

A.1.4 (Oracle Server) Installing Set 2 of the Oracle 10g 10.2.0.3 Patch for the Solaris Operating System (SPARC 64-Bit)

Skip this section if you already installed the 10.2.0.3 patch for Oracle 10g.

Step 1 Enter the following commands to install the 10.2.0.3 patch:

```
cd Disk1
./runInstaller -silent -responseFile /oracle/patchset_64bit_10203.rsp
```

Step 2 At the prompt to run the root.sh script, log into another terminal window as the root user and enter the following commands:

```
/oracle/product/10.2.0/root.sh
```

Step 3 At the prompt for the local bin directory, enter the following path in the root.sh script:

```
/oracle/product/10.2.0/local/bin
```



Note You are prompted to overwrite some files. Reply **yes** to all of the prompts.

Step 4 Enter the following command to remove the 10.2.0.3 patch installation files:

```
rm -rf /oracle/Disk1
```

A.1.5 Postinstallation Steps

After you install Set 2 of the Oracle 10.2.0.3 patch for the Solaris operating system (SPARC 64-bit), complete the following steps on every database associated with the upgraded Oracle home as recommended by the official Oracle patch README.html file.



Note This section includes only the required postinstallation steps. See the README.html document that accompanies the Oracle patch for the complete postinstallation steps.

-
- Step 1** Enter the following command to move to the home directory of the oracle user:
- ```
cd
```
- Step 2** By default, all new files and directories are created with restricted access during the patch set installation. Users or third-party applications with a group identifier that is different from the database will see permission errors when they try to access client utilities or libraries in the database home. Enter the following command to run the changePerm.sh script:
- ```
$ORACLE_HOME/install/changePerm.sh
```
- Choose “y” when prompted to continue.



Note This process might take up to 15 minutes to complete.

- Step 3** Because the client static library (libclntst10.a) is not generated during installation, enter the following command to generate and link your applications to the client static library:
- ```
$ORACLE_HOME/bin/genclntst
```
- 

## A.1.6 Downloading and Installing the OPatch (Patch Number 4898608)

You must download and install patch 4898608 for Oracle 10.2.0.3 and Solaris 64-bit.

### A.1.6.1 Downloading the OPatch (Patch Number 4898608)

- 
- Step 1** Go to <http://metalink.oracle.com> and click **Login to MetaLink**. Enter your Oracle MetaLink username and password.
- Step 2** Select **Patch** from the menu and search for the 4898608 patch.
- Step 3** Click **Download** to download the p4898608\_10203\_GENERIC.zip file to your local workstation.
- Step 4** Enter the following command to log into the database workstation as the oracle user:
- ```
su - oracle
```
- Step 5** Save the patch to the \$ORACLE_HOME directory.
-

A.1.6.2 Installing the OPatch (Patch Number 4898608)

-
- Step 1** Enter the following command to log into the database workstation as the oracle user:
- ```
su - oracle
```
- Step 2** Enter the following commands to unzip p4898608\_10203\_GENERIC.zip into your Oracle home directory:
- ```
cd $ORACLE_HOME
unzip p4898608_10203_GENERIC.zip
```

Step 3 At the prompt asking if you want to replace all files, choose **Replace All**.

Patch 4898608 is now installed.

Step 4 To verify that you have the Opatch utility 10.2.0.3.4 installed, enter the following command as the oracle user:

```
$ORACLE_HOME/OPatch/opatch version
```

The following messages appear:

```
Invoking OPatch 10.2.0.3.4
OPatch Version: 10.2.0.3.4
OPatch succeeded.
```

Step 5 Enter the following command to remove the temporary .zip file:

```
rm $ORACLE_HOME/p4898608_10203_GENERIC.zip
```

A.1.7 Downloading and Installing the Additional Patch Required After Installing the Oracle 10g 10.2.0.3 Patch Set 2 for the Solaris Operating System (SPARC 64-Bit)

You must download and install patch 6235161 for Oracle 10.2.0.3 and Solaris 64-bit.



Caution

Install patch 4898608 (which you did in [A.1.6.2 Installing the OPatch \(Patch Number 4898608\)](#)) before installing patch 6235161. For the latest information about this critical patch update, see the official installation guide included with the patch itself.

A.1.7.1 Downloading the Additional Oracle Patch

Step 1 Go to <http://metalink.oracle.com> and click **Login to MetaLink**. Enter your Oracle MetaLink username and password.

Step 2 Select **Patch** from the menu and search for the 6235161 patch.

Step 3 Choose **Solaris Operating System (SPARC 64-bit)** from the Platform or Language list box.

Step 4 Click **Go**.

Step 5 Click **Download** to download the p6235161_10203_SOLARIS64.zip file to your local workstation.

Step 6 Enter the following command to log into the database workstation as the oracle user:

```
su - oracle
```

Step 7 Save the patch to the \$ORACLE_HOME directory.

A.1.7.2 Installing the Additional Oracle Patch

Step 1 Enter the following commands to unzip p6235161_10203_SOLARIS64.zip into your Oracle home directory:

```
cd $ORACLE_HOME
unzip p6235161_10203_SOLARIS64.zip
```

A new 6235161 folder is created.

Step 2 Enter the following command to change to the 6235161 folder:

```
cd 6235161
```

Step 3 Enter the following command to apply the patch:

```
../OPatch/opatch apply
```



Note

- If you receive the following warning message after installing the patch, complete [Step 4](#) and [Step 5](#):

```
WARNING: Verification of 'ar' actions failed. This is a known issue for this platform.
Please check the note 353150.1 on Metalink for the process to manually verify the
files.
```

- If you do not receive a warning message, skip to [Step 6](#).

Step 4 Check the latest log file in the /oracle/product/10.2.0/cfgtoollogs/opatch directory.

Step 5 Enter the following command:

```
grep "file name" /oracle/product/10.2.0/cfgtoollogs/opatch/<log_file>
```

The file size should have increased by 4 bytes.

Step 6 Enter the following command to determine whether the 6235161 patch is installed:

```
$ORACLE_HOME/OPatch/opatch lsinventory | grep 6235161
```

The output should show the 6235161 patch number as one of any installed patches.

Step 7 Enter the following command to remove the temporary .zip file:

```
rm $ORACLE_HOME/p6235161_10203_SOLARIS64.zip
```

Step 8 Return to the procedure in Chapter 2 or Chapter 3 that brought you here.

A.2 Downloading and Installing the Alert Patch for Oracle CPUApr2008 (Patch Number 6864068)

You must download and install patch 6864068 for Oracle 10.2.0.3 and Solaris 64-bit.



Caution

Verify that you installed patch 4898608 (which you did in [A.1.6.2 Installing the OPatch \(Patch Number 4898608\)](#)) before installing patch 6864068. For the latest information about this critical patch update, see the official installation guide included with the patch itself.

A.2.1 Downloading the Alert Patch

-
- Step 1** Go to <http://metalink.oracle.com> and click **Login to MetaLink**. Enter your Oracle MetaLink username and password.
 - Step 2** Choose **Patch** from the menu and search for the 6864068 patch.
 - Step 3** Choose **Solaris Operating System (SPARC 64-bit)** from the Platform or Language list box.
 - Step 4** Click **Go**.
 - Step 5** Click **Download** to download the p6864068_10203_SOLARIS64.zip file to your local workstation.
 - Step 6** Enter the following command to log into the database workstation as the oracle user:


```
su - oracle
```
 - Step 7** Save the patch to the \$ORACLE_HOME directory.
-

A.2.2 Installing the Alert Patch

-
- Step 1** Enter the following command to log into the database workstation as the oracle user:


```
su - oracle
```
 - Step 2** Enter the following commands to unzip p6864068_10203_SOLARIS64.zip to your Oracle home directory:


```
cd $ORACLE_HOME
unzip p6864068_10203_SOLARIS64.zip
```

A new 6864068 folder is created and takes 40 MB of disk space.



Caution

Installing the patch requires at least 3 GB of available disk space on the /oracle partition because the .patch_storage area on Oracle_Home takes 2.5 GB of disk space during installation.

Do not delete the .patch_storage area. Otherwise, you cannot roll back the patch.

-
- Step 3** Enter the following command to free some space on the .patch_storage area:


```
$ORACLE_HOME/OPatch/patch util cleanup
```

Step 4 Answer yes at the following prompt:

```
Do you want to proceed? [y|n] y
```

Step 5 If you do not have at least 3 GB of available disk space on the /oracle partition, complete the following substeps:

- a. Assign a disk area that has at least 3 GB of available disk space. Do not use /tmp.
- b. As the root user, enter the following commands to create a directory and assign to it the oracle user and oinstall group:

```
cd <partition_disk_with_3GB_free_space>
mkdir storage
chown oracle:oinstall storage
```

- c. Enter the following commands:

```
su - oracle
cd $ORACLE_HOME
mv .patch_storage <partition_disk_with_3GB_free_space>/storage
ln -s <partition_disk_with_3GB_free_space>/storage/.patch_storage .patch_storage
```

Step 6 Enter the following command to save the actual report list of the installed patch:

```
$ORACLE_HOME/OPatch/opatch lsinventory > PRE_ORACLE_INVENTORY_PATCH.LOG
```

Step 7 Enter the following commands to install the patch:

```
cd $ORACLE_HOME/6864068
$ORACLE_HOME/OPatch/opatch napply -skip_subset -skip_duplicate
```

Step 8 Click **Yes** in response to all questions. Installing the patch takes approximately 30 minutes.

Step 9 (Applicable only when patching the Oracle server; not applicable when patching the Oracle client) Click **No** to all OCM-related questions.

Step 10 (Applicable only when patching the Oracle server; not applicable when patching the Oracle client) Check the latest log file in the /oracle/product/10.2.0/cfgtoollogs/opatch directory.

Step 11 Enter the following command to clean up the .patch_storage area:

```
$ORACLE_HOME/OPatch/opatch util cleanup
```



Note

The .patch_storage area should have decreased in size from 2.6 GB to 62 MB. This process might take up to 20 minutes.

Step 12 (If you skipped [Step 5](#) because you have enough disk space on the /oracle partition, skip this step and proceed to [Step 13](#).) Enter the following commands to restore the .patch_storage area to the original location if it was created in a different disk space:

```
cd $ORACLE_HOME
rm .patch_storage
cd <partition_disk_with_3GB_free_space>/storage/
mv .patch_storage $ORACLE_HOME
cd ..
rmdir storage
```

Step 13 Enter the following commands to perform some general cleanup:

```
cd $ORACLE_HOME
rm -rf 6864068
rm -f p4898608_10203_GENERIC.zip p6864068_10203_SOLARIS64.zip
```

Step 14 Return to the procedure in Chapter 2 or Chapter 3 that brought you here.

A.3 Downloading and Installing the Oracle Patch 5201883

Step 1 Go to <http://metalink.oracle.com> and click **Login to MetaLink**. Enter your Oracle MetaLink username and password.

Step 2 Select **Patch** from the menu and search for the 5201883 patch.

Step 3 Choose **Solaris Operating System (SPARC 64-bit)** from the Platform or Language list box.

Step 4 Click **Go**.

Step 5 Click **Download** to download the p5201883_10203_SOLARIS64.zip file to your local workstation.

Step 6 Enter the following command to log into the database workstation as the oracle user:

```
su - oracle
```

Step 7 Save the patch to the \$ORACLE_HOME directory.

Step 8 Enter the following commands to unzip p5201883_10203_SOLARIS64.zip to your Oracle home directory:

```
cd $ORACLE_HOME
unzip p5201883_10203_SOLARIS64.zip
```

A new 5201883 folder is created.

Step 9 Enter the following command to change to the 5201883 folder:

```
cd 5201883
```

Step 10 Enter the following command to apply the patch:

```
$ORACLE_HOME/OPatch/opatch apply
```

Step 11 Enter the following command to verify that the 5201883 patch is installed:

```
$ORACLE_HOME/OPatch/opatch lsinventory | grep 5201883
```

The output should show the 5201883 patch number as one of any installed patches.

Step 12 Enter the following commands to remove the temporary .zip file:

```
rm $ORACLE_HOME/p5201883_10203_SOLARIS64.zip
rm -r $ORACLE_HOME/p5201883
```

A.4 Downloading and Installing the Oracle Patch 5752399

If your CTM configuration uses Veritas, you must install Oracle patch 5752399. There is a critical bug on the Oracle 10.2.0.3 patch that is installed when the CTM configuration uses Veritas (in both HA and non-HA setups). Refer to Note: 405825.1 “10.2.0.3: Solaris: Veritas/Solstice: SVR4 Error: 25: Inappropriate ioctl for device” on the Oracle MetaLink website. The bug symptom is that you receive the following error message at Oracle startup: “ORA-27037: Unable to obtain file status.”

**Note**

This section includes only the required postinstallation steps. Refer to the README.html document that accompanies the Oracle patch for the complete postinstallation steps.

-
- Step 1** Go to <http://metalink.oracle.com> and click **Login to MetaLink**. Enter your Oracle MetaLink username and password.
- Step 2** Select **Patch** from the menu and search for the 5752399 patch.
- Step 3** Choose **Solaris Operating System (SPARC 64-bit)** from the Platform or Language list box.
- Step 4** Click **Go**.
- Step 5** Click **Download** to download the p5752399_10203_SOLARIS64.zip file to your local workstation.
- Step 6** Enter the following command to log into the database workstation as the oracle user:
- ```
su - oracle
```
- Step 7** Save the patch to the \$ORACLE\_HOME directory.
- Step 8** Enter the following command to extract the patch files as the oracle user:
- ```
unzip p5752399_10203_SOLARIS64.zip
```
- A subdirectory called 5752399 is created.
- Step 9** As the oracle user, enter the following command to change directories to the 5752399 directory:
- ```
cd 5752399
```
- Step 10** Read the README.txt file for the Oracle installation information.
- Step 11** Complete the following substeps to install the patch:
- Stop all Oracle processes if they are running.
  - Enter the following command:

```
../OPatch/opatch apply OPatch.SKIP_VERIFY=true
```
- Step 12** Enter the following command to determine whether the 5752399 patch is installed:
- ```
../OPatch/opatch lsinventory | grep 5752399
```
- The command output should show the 5752399 patch number.
-

A.5 Postinstallation Steps for the Alert Patch for Oracle CPUApr2008 (Patch Number 6864068)

Before completing the following steps, verify that the CTM database is already installed.

-
- Step 1** After installing the CTM server, complete the following substeps to load the modified .sql files into the database:
- Enter the following command to connect as the oracle user:

```
su - oracle
```

- b. Enter the following command to verify that Oracle and the listener are up:

```
ps -ef | grep ora
```

You should see many processes listed in the command output.

- c. Use SQL*Plus to connect to the database as SYSDBA and run the catcpu.sql script, as follows:

```
cd $ORACLE_HOME/cpu/CPUPr2008
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> @catcpu.sql
SQL> QUIT
```

- d. Check the APPLY_CTM_<date>.log file for any errors. You can safely ignore the following errors:

```
ORA-04043: object <object_name> does not exist
ORA-00955: name is already used by an existing object
```

- e. Enter the following command to check for any invalid objects:

```
cd $ORACLE_HOME/cpu/CPUPr2008
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> SELECT OBJECT_NAME FROM DBA_OBJECTS WHERE STATUS= 'INVALID';
SQL> QUIT
```

If any invalid objects exist, the preceding query returns multiple rows as a response. If there are no invalid objects, the preceding query returns no rows.

- f. If the catcpu.sql script reports any invalid objects, enter the following commands:

```
cd $ORACLE_HOME/rdbms/admin
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> @utltp.sql
SQL> QUIT
```

Step 2 Complete the following substeps to recompile the views in the database, if necessary. The time required to recompile the views and related objects depends on the total number of objects and your system configuration.

- a. As the oracle user, enter the following commands to determine whether view recompilation should be done at the same time as the CPU installation, or scheduled later:

```
cd $ORACLE_HOME/cpu/view_recompile
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> @recompile_precheck_jan2008cpu.sql
SQL> QUIT
```

- b. Enter the following commands to run the view recompilation script. Note that this script is run with the database in upgrade mode, which restricts connections as SYSDBA:

```
cd $ORACLE_HOME/cpu/view_recompile
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> shutdown immediate
SQL> STARTUP UPGRADE
SQL> @view_recompile_jan2008cpu.sql
SQL> SHUTDOWN;
SQL> STARTUP;
SQL> QUIT
```

**Note**

The script might take up to 10 minutes to complete.

- c. Check for any errors in the `vcomp_<SID>_<time_stamp>.log` file in the current directory.
- d. If any invalid objects were reported, enter the following commands to run the `utlrp.sql` script:

```
cd $ORACLE_HOME/rdbms/admin
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> @utlrp.sql
```

- e. Enter the following commands to verify that the view recompilation has been performed for the database:

```
SQL> SELECT * FROM registry$history where ID = '6452863';
SQL> QUIT
exit
```

If the view recompilation has been performed, the preceding query returns one row. If the view recompilation has not been performed, the preceding query returns no rows.

Step 3 Return to the procedure in Chapter 2 or Chapter 3 that brought you here.

■ A.5 Postinstallation Steps for the Alert Patch for Oracle CPUApr2008 (Patch Number 6864068)